





February 18, 2014

VIA FED EX

- *Engineering*
- *Remediation*
- *Consulting*

Mr. Richard Staron
Pennsylvania Department of Environmental Protection
Environmental Cleanup Program (ECP)
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

RE: Status Report
ECP – Special Projects – Act 2
Superior Tube Company, Inc.
(eFACTS # 47534)
3900 Germantown Pike
Lower Providence Township, Montgomery County

Dear Mr. Staron:

Pursuant to a Consent Order and Agreement (COA), dated September 14, 2011, with the Pennsylvania Department of Environmental Protection (PADEP), Environmental Alliance, Inc. (Alliance), on behalf of Superior Tube Company, Inc. (“STCI”), submits this Status Report on the progress of the Act 2 Cleanup of the Superior Tube Company, Inc. property in Collegeville, Pennsylvania (“the Site”).

Status Report

- ◆ A Remedial Investigation Report was submitted on May 19, 2011. The Report included written summaries and data from the numerous investigations and remedial activities conducted previously at the Site under the oversight of the United States Environmental Protection Agency (EPA), in accordance with the Resource Conservation and Recovery Act (RCRA) Corrective Action program.
- ◆ A Notice of Intent to Remediate (NIR) the Site, including municipal and public notice of the NIR pursuant to the requirements of Act 2 was submitted on May 25, 2011.
- ◆ A Cleanup Plan, containing a final remedy, site specific standards and a Post Remediation Care Plan were submitted on July 19, 2011.
- ◆ Approval, with comments, of the Remedial Investigation Report and Cleanup Plan was provided by PADEP in written correspondence dated August 19, 2011.

- ◆ The COA dated on or about September 14, 2011, was entered in settlement of Response Costs Liability pursuant to the Hazardous Sites Cleanup Act.
- ◆ In accordance with the COA and in regards to STCI's contribution to the PADEP public water line extension project, STCI and Lower Providence Township are parties to an agreement dated October 13, 2011 by which STCI has agreed to connect properties to existing public water mains within the project area.
- ◆ The Township adopted a mandatory hookup ordinance on March 15, 2012 requiring all properties in the project area to hookup to new or existing public water mains.
- ◆ STCI provided Notice of Award to Bulldog Construction on April 12, 2012 to proceed with construction of property connections to existing water mains. Bulldog Construction began installation of the private water lines in May.
- ◆ Alliance conducted site-wide groundwater monitoring and sampling from May 29 through 31, 2012. Samples were collected from sixteen (16) on-site monitoring, recovery, or production wells, seven (7) residential or commercial and two (2) air strippers (influent and effluent) as per the EPA groundwater monitoring program.
- ◆ Alliance conducted additional groundwater monitoring and sampling of select north recovery system (NRS) wells in April through May 2012 as part of "sensitivity" testing performed in response to an unplanned shutdown of the NRS pumping wells.
- ◆ In July 2012, Bulldog Construction completed construction of all property connections to existing water mains in accordance with their contract.
- ◆ On August 6, 2012, Alliance submitted notification to DEP and EPA of the shutdown of the Dual Phase Extraction (DPE) remediation system.
- ◆ The annual groundwater monitoring and sampling event was conducted from November 26 through 30, 2012. Samples were collected from twenty (20) on-site monitoring, recovery, or production wells, four (4) residential or commercial, and two (2) air strippers (influent and effluent).
- ◆ All active groundwater remediation at the facility has ceased. The SRS and NRS wells used for groundwater remediation and containment were shut down by February 6, 2013.
- ◆ Monthly monitoring and sampling of select interior wells commenced in February 2013 and will continue in accordance with the approved Cleanup Plan.
- ◆ The first Post-Remediation Quarterly Attainment Monitoring Event occurred during the first quarter of 2013. Groundwater monitoring and sampling of point of compliance (POC) wells was conducted during the week of March 11, 2013.
- ◆ One POC well, 2M, reported an exceedance of the TCE site-specific standard (SSS) of 1,800 µg/L in March. On March 12, 2013, 2M reported a dissolved TCE concentration of 2,400 µg/L. The well was resampled on March 29, 2013 and reported a dissolved TCE concentration of 1,500 µg/L, below the SSS. A Notification of Exceedance report was submitted to EPA and PADEP on April 15, 2013, and monthly sampling of 2M was

initiated. The analytical results from the April and May sampling events at 2M indicated dissolved TCE concentrations of 2,200 µg/L and 2,300 µg/L, respectively.

- ◆ In an email dated May 16, 2013, PADEP requested an evaluation of the vapor intrusion exposure pathway in response to the SSS exceedance reported at POC well 2M; specifically requesting that sub-slab and indoor air sampling be conducted in homes adjacent to monitoring well 2M.
- ◆ STCI drafted a vapor intrusion sampling work plan and an access authorization request for the residence at 3927 Beth Drive, the home closest to monitoring well 2M.
- ◆ On June 12, 2013, Alliance received a fully executed copy of the Access Agreement between STCI and Mr. John Errington, homeowner of 3927 Beth Drive. Pursuant to receipt of the executed Agreement, an indoor air building survey / inspection was conducted at the residence on June 14, 2013 and installation of the sub-slab sampling points was completed on June 21, 2013.
- ◆ The sub-slab and indoor air sampling at 3927 Beth Road was conducted during the week of June 24, 2013. None of the chemicals of concern for the Site were detected in any of the sub-slab or ambient air samples. The results of the Vapor Intrusion Investigation were presented in a report dated July 24, 2013 addressed to Mr. Errington, and copied to PADEP and EPA. A winter sampling event also occurred in January 2014.
- ◆ The second Post-Remediation Quarterly Attainment Monitoring Event occurred during the second quarter of 2013. Groundwater monitoring and sampling of POC wells was conducted in June 2013.
- ◆ The third Post-Remediation Quarterly Attainment Monitoring Event occurred during the third quarter of 2013. Groundwater monitoring and sampling of POC wells was conducted in September 2013. All POC wells reported TCE groundwater concentrations below the SSS during the third quarter event.
- ◆ The POC monitoring well MW-1 was added to the monthly sampling plan in October due to an increase in dissolved TCE concentration identified at the well during the third quarter event in September 2013. The sampling results for MW-1 from October were below the SSS for TCE, but the result received for the November sampling event was 2,000 µg/L, above the SSS of 1,800 µg/L. The POC well was resampled during the quarterly event conducted the week of December 9th. The analytical results for MW-1 from the December event indicated a TCE concentration of 1,600 µg/L.
- ◆ Although the exceedance was not confirmed with the December sampling results, STCI proactively submitted a work plan to PADEP and EPA for additional data collection in the area of MW-1 to further evaluate the vapor intrusion pathway. The work plan, dated January 27, 2014, proposed the installation and sampling of soil gas monitoring wells on Lot 8 in the vicinity of MW-1. The installation and first sampling event are scheduled to be completed in February 2014.

- ◆ The winter sampling of the sub-slab and indoor air at Mr. Errington's residence (3927 Beth Road) was conducted on January 30-31, 2014.
- ◆ A second exceedance of the TCE SSS at MW-1 was reported during the January 30, 2014 sampling event.

A groundwater analytical data summary table presenting analytical results for the POC wells and interior monitoring wells dating back to 2008 is attached as Table 1. A Site Base Map is attached as Figure 1.

If you have any questions regarding this submittal or require additional information, please contact me at (302) 234-4400.

Sincerely yours,

ENVIRONMENTAL ALLIANCE, INC.



Joseph Rossi
Project Manager

Attachments

c: Stephen Sinding, PADEP
Khai Dao, USEPA
Rick Warden, STC (via e-mail)
Ben Huber, STCI (via e-mail)
Brian Jacot, Greystone Consolidated Companies, Inc. (via e-mail)

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TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)				
				cis-1,2-DCE	trans-1,2-DCE	TCE	1,1,1-TCA	Vinyl Chloride
Site Specific Standards								
2M	01/08/08	-	-	<5	<5	<5	<5	<5
TOC = 163.91	05/28/08	-	-	19	<10	<10	<10	1,800
	11/12/08	-	-	<5	<5	5	<5	180
	11/18/09	-	-	<5	<5	5	<5	260
	11/19/10	-	-	<5	<5	5	<5	250
	05/16/11	-	-	<5	<5	5	<5	330
	09/08/11	-	-	7	<5	<5	<5	860
	11/14/11	123.70	40.21	<10	<10	<10	<10	970
	12/26/11	-	-	7	<5	<5	<5	310
	12/30/11	125.20	38.71	5	<5	<5	<5	230
	04/19/12	196.80	-32.89	<25	<25	<25	<25	2,000
	04/27/12	196.80	-32.89	11	<10	<10	<10	2,000
	05/02/12	196.80 **	-32.89	<10	<10	<10	<10	1,800
	05/09/12	196.80 **	-32.89	<25	<25	<25	<25	2,100
	05/17/12	-	-	11	<10	<10	<10	2,300
	05/24/12	-	-	10	<5	<5	<5	1,200
	06/01/12	-	-	17	<10	<10	<10	2,100
	06/29/12	-	-	<5	<5	<5	<5	250
	07/06/12	-	-	<5	<5	<5	<5	260
	10/11/12	181.50 **	-17.59	-	-	-	-	-
	11/26/12	107.10	56.81	<5	<5	<5	<5	160
	03/12/13	59.00	104.91	8	<5	<5	<5	2,400
	03/29/13	-	-	6	<5	<5	<5	1,500
	04/15/13	53.01	110.90	<25	<25	<25	<25	2,200
	05/16/13	52.61	111.30	<10	<10	<10	<10	2,300
	06/11/13	52.71	111.20	<10	<10	<10	<10	3,000
	08/20/13	53.05	110.86	<10	<10	<10	<10	2,000
	09/03/13	52.91	111.00	<5	<5	<5	<5	1,600
	10/02/13	55.15	108.76	<10	<10	<10	<10	2,500
	11/29/13	56.31	107.60	<50	<50	<50	<50	9,300
	12/13/13	55.24	108.67	12	<5	<5	<5	3,700

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Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	DCE	PCE	1,1,1-TCA	TCE
PA112500 PRESSURE TESTS									
3M	01/08/08	43.21	124.76	<5	<5	<5	<5	<5	<5
TOC = 167.97	05/27/08	43.60	124.37	<5	<5	<5	<5	<5	<5
	11/11/08	45.51	122.46	<5	<5	<5	<5	<5	<5
	05/12/09	43.10	124.87	<5	<5	<5	<5	<5	<5
	11/16/09	43.62	124.35	<5	<5	<5	<5	<5	<5
	05/18/10	44.08	123.89	<5	<5	<5	<5	<5	<5
Dup	05/18/10	--	--	<5	<5	<5	<5	<5	<5
	11/17/10	43.91	124.06	<5	<5	<5	<5	<5	<5
	05/16/11	43.40	124.57	<5	<5	<5	<5	<5	<5
	09/08/11	--	--	<5	<5	<5	<5	<5	<5
	11/15/11	42.89	125.08	<5	<5	<5	<5	<5	<5
	12/26/11	43.92	124.05	<5	<5	<5	<5	<5	<5
	12/28/11	42.67	125.30	<5	<5	<5	<5	<5	<5
	12/30/11	42.56	125.41	<5	<5	<5	<5	<5	<5
	04/19/12	43.25	124.72	<5	<5	<5	<5	<5	<5
	04/27/12	42.35	125.62	<5	<5	<5	<5	<5	<5
	05/03/12	41.12	126.85	1.3	<0.5	<0.5	<0.5	<0.5	<0.5*
	05/09/12	41.60	126.37	<5	<5	<5	<5	<5	<5
	05/17/12	--	--	<5	<5	<5	<5	<5	<5
	05/24/12	--	--	<5	<5	<5	<5	<5	<5
	05/29/12	42.68	125.29	<5	<5	<5	<5	<5	<5
	06/08/12	43.10	124.87	<5	<5	<5	<5	<5	<5
	11/26/12	43.41	124.56	<5	<5	<5	<5	<5	<5
	03/12/13	35.70	132.27	<5	<5	<5	<5	<5	<5
	06/13/13	39.12	128.85	<5	<5	<5	<5	<5	<5
	09/05/13	39.70	128.27	<5	<5	<5	<5	<5	<5
	12/11/13	40.21	127.76	<5	<5	<5	<5	<5	<5

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				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
Site Specific Standards									
4M	01/07/08	160.30	8.40	<500	<500	<500	<500	<500	<500
TOC = 168.70	05/28/08	156.11	12.59	<500	<500	<500	<500	<500	<500
	11/10/08	--	--	<500	<500	<500	<500	<500	<500
	05/12/09	--	--	<500	<500	<500	<500	<500	<500
	11/16/09	157.57	11.13	<500	<500	<500	<500	<500	<500
	05/17/10	160.00	8.70	300	<250	<250	<250	<250	<250
	11/15/10	179.00	-10.30	<50	<50	<50	<50	<50	<50
	12/09/10	--	--	53	<16	20	<16	19,000	--
	01/11/11	--	--	58	<50	<50	<50	<50	14,000
	02/28/11	--	--	<50	<50	<50	<50	<50	8,600
	03/15/11	--	--	<50	<50	<50	<50	<50	7,500
	04/05/11	--	--	<25	<25	<25	<25	<25	4,000
	05/04/11	--	--	<100	<100	<100	<100	<100	11,000
	05/16/11	167.30	1.40	<25	<25	<25	<25	<25	7,700
	06/09/11	--	--	<250	<250	<250	<250	<250	25,000
	08/22/11	174.70	-6.00	10	<5	6	<5	880	--
	09/08/11	--	--	11	<5	<5	<5	900	--
	10/19/11	--	--	<25	<25	<25	<25	3,300	--
	11/14/11	174.90	-6.20	7	<5	<5	<5	510	--
	12/05/11	--	--	<50	<50	<50	<50	10,000	--
	12/26/11	169.10	-0.40	<100	<100	<100	<100	24,000	--
	12/30/11	86.90	81.80	<50	<50	<50	<50	15,000	--
	02/24/12	--	--	<50	<50	<50	<50	13,000	<50
	03/06/12	--	--	<50	<50	<50	<50	8,600	<50
	03/29/12	--	--	33	<25	<25	<25	11,000	<25
	04/19/12	120.80	47.90	<50	<50	<50	<50	4,200	<50
	04/27/12	120.00	48.70	<25	<25	<25	<25	3,800	<25
	05/02/12	76.72	91.98	<50	<50	<50	<50	15,000	<50
	05/09/12	80.12	88.58	<100	<100	<100	<100	14,000	<100
	05/17/12	--	--	<100	<100	<100	<100	17,000	<100

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				cis-1,2-DCE	trans-1,2-DCE	TCE	1,1,1-TCA	Vinyl Chloride			
PATRIOT WELLS											
4M cont'd											
05/24/12	05/29/12	-	-	<10	<10	<10	<10	<10			
06/08/12	-	-	-	13	<5	8	<5	4,100			
07/25/12	-	-	-	<25	<25	<25	<25	4,900			
08/21/12	-	-	-	<100	<100	<100	<100	<100			
09/10/12	-	-	-	<100	<100	<100	<100	15,000			
10/11/12	138.5 **	-	-	57	<25	26	<25	18,000			
11/26/12	159.60	9.10	-	<50	<50	<50	<50	14,000			
02/06/13	174.30	-5.60	-	<25	<25	<25	<25	2,100			
02/28/13	59.35	109.35	-	<25	<25	<25	<25	3,400			
03/11/13	59.04	109.66	-	<50	<50	<50	<50	7,600			
04/15/13	58.20	110.50	-	32	<5	12	<5	6,800			
05/16/13	57.58	111.12	-	<130	<130	<130	<130	12,000			
06/11/13	57.70	111.00	-	150	<10	39	14	41,000			
07/11/13	57.40	111.30	-	69	<50	<50	<50	19,000			
08/20/13	58.01	110.69	-	57	<50	<50	<50	18,000			
09/03/13	57.92	110.78	-	52	<50	<50	<50	16,000			
10/02/13	59.91	108.79	-	<100	<100	<100	<100	27,000			
11/29/13	61.02	107.68	-	<50	<50	<50	<50	12,000			
12/13/13	60.14	108.56	-	220	<100	<100	<100	45,000			
01/30/14	58.22	110.48	-	230	<5	27	14	37,000			
				-	-	-	-	-			

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				cis-1,2-DCE	trans-1,2-DCE	DCE	1,1,1-TCA	TCE	Vinyl Chloride
POC SPECIFIC STANDARDS									
8M	01/07/08	20.71	105.05	<5	<5	<5	<5	<5	<5
TOC = 125.76	05/28/08	20.25	105.51	<5	<5	<5	<5	<5	<5
	11/10/08	21.95	103.81	<5	<5	<5	<5	<5	<5
	05/11/09	19.31	106.45	<5	<5	<5	<5	<5	<5
	11/18/09	22.37	103.39	<5	<5	<5	<5	<5	<5
	05/19/10	20.61	105.15	<5	<5	<5	<5	<5	<5
	11/17/10	19.78	105.98	<5	<5	<5	<5	<5	<5
	05/17/11	20.59	105.17	<5	<5	<5	<5	<5	<5
	11/14/11	20.31	105.45	<5	<5	<5	<5	<5	<5
	05/03/12	19.95	105.81	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*
	05/09/12	19.55	106.21	<5	<5	<5	<5	<5	<5
	05/17/12	-	-	<5	<5	<5	<5	<5	<5
	05/24/12	-	-	<5	<5	<5	<5	<5	<5
	05/29/12	20.39	105.37	<5	<5	<5	<5	<5	<5
	06/08/12	23.11	102.65	<5	<5	<5	<5	<5	<5
	11/28/12	20.54	105.22	<5	<5	8	<5	46	<5
	03/11/13	18.89	106.87	<5	<5	<5	<5	<5	<5
	06/11/13	20.29	105.47	<5	<5	<5	<5	<5	<5
	09/03/13	22.15	103.61	<5	<5	<5	<5	<5	<5
	12/12/13	21.35	104.41	<5	<5	<5	<5	7	<5

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Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
MW-15	01/09/08	60.04	130.81	<10	<10	73	<10	1300	<10
TOC = 190.85	05/27/08	63.46	127.39	<10	<5	47	<10	2,300	-
	11/10/08	70.70	120.15	<5	<10	97	<5	640	-
	05/11/09	64.25	126.60	<10	<10	80	<10	1,200	-
	11/17/09	64.40	126.45	7	<5	77	<5	1,300	-
	05/18/10	65.47	125.38	<10	<10	55	<10	2,600	-
	11/16/10	66.56	124.29	<5	<5	87	<5	660	-
	05/17/11	62.06	128.79	<10	<10	73	<10	1,900	-
	11/17/11	57.09	133.76	<5	<5	73	<5	650	-
	05/30/12	63.39	127.46	<10	<10	50	<10	980	<10
	11/28/12	60.05	130.80	<5	<5	77	<5	1,500	<5
	02/28/13	49.41	141.44	<5	<5	57	<5	720	<5
	03/13/13	50.45	140.40	<5	<5	44	<5	750	<5
	04/15/13	49.42	141.43	<5	<5	45	<5	1,300	<5
	05/16/13	50.76	140.09	<5	<5	43	<5	670	<5
	06/13/13	51.83	139.02	<5	<5	39	<5	610	<5
	07/11/13	49.32	141.53	<5	<5	40	<5	700	<5
	08/20/13	54.05	136.80	<5	<5	41	<5	1,200	<5
	09/05/13	54.41	136.44	<5	<5	43	<5	1,700	<5
	10/02/13	59.35	131.50	<10	<10	35	<10	1,400	<10
	11/15/13	64.02	126.83	<5	<5	49	<5	2,000	<5
	12/11/13	64.96	125.89	<25	<25	47	<25	4,700	<25
	01/30/14	56.70	134.15	<10	<10	46	<10	1,600	<10
MW-17	01/09/08	94.37	105.90	<5	<5	8	<5	29	<5
TOC = 200.27	05/27/08	102.10	98.17	-	<5	-	<5	-	-
	11/12/08	97.23	103.04	<5	<5	24	<5	<5	-
	05/12/09	107.08	93.19	-	-	-	-	-	-
	11/17/09	112.61	87.66	<5	<5	9	<5	<5	-
	05/17/10	112.22	88.05	-	-	-	-	-	-
	11/17/10	115.60	84.67	<5	<5	12	<5	6	-
	05/16/11	103.41	96.86	-	-	-	-	-	-
	11/17/11	89.90	110.37	<5	<5	9	<5	5	-
	05/03/12	32.82	167.45	-	-	-	-	-	-
	11/27/12	96.60	103.67	<5	<5	<5	<5	<5	<5
	03/13/13	72.55	127.72	<5	<5	<5	<5	<5	<5
	06/14/13	72.15	128.12	<5	<5	5	<5	<5	<5
	09/04/13	80.59	119.68	<5	<5	5	<5	<5	<5
	12/12/13	92.39	107.88	<5	<5	10	<5	12	<5

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				dis-1,2-DCE	trans-1,2-DCE	DCE	1,1,1-TCA	TCE	Vinyl Chloride
PA 1052-2008 RES									
MW-21	01/09/08	121.36	56.75	<5	<5	11	<5	11	<5
TOC = 178.11	05/27/08	123.98	54.13	<5	<5	<5	<5	<5	<5
	11/12/08	124.04	54.07	<5	<5	<5	<5	<5	<5
	05/12/09	123.50	54.61	<5	<5	16	<5	37	<5
	11/18/09	122.57	55.54	<5	<5	<5	<5	<5	<5
	11/18/09	—	—	<5	<5	<5	<5	<5	<5
Dup	05/17/10	129.63	48.48	<5	<5	<5	<5	<5	<5
	11/17/10	122.50	55.61	<5	<5	<5	<5	<5	<5
	05/16/11	117.33	60.78	<5	<5	<5	<5	<5	<5
Dup	05/16/11	—	—	<5	<5	<5	<5	<5	<5
	11/15/11	98.86	79.25	<5	<5	<5	<5	<5	<5
	12/26/11	121.55	56.56	<5	<5	<5	<5	<5	<5
	12/28/11	108.41	69.70	<5	<5	<5	<5	<5	<5
	12/30/11	96.09	82.02	<5	<5	<5	<5	<5	<5
	05/03/12	87.18	90.93	<0.5	<0.5	<0.5	<0.5	1	<0.5 *
	05/09/12	81.80	96.31	<5	<5	<5	<5	<5	<5
	05/17/12	—	—	<5	<5	<5	<5	<5	<5
	05/24/12	—	—	<5	<5	<5	<5	<5	<5
	05/29/12	94.97	83.14	<5	<5	<5	<5	<5	<5
	06/08/12	100.51	77.60	<5	<5	<5	<5	<5	<5
	11/26/12	93.89	84.22	<5	<5	<5	<5	<5	<5
	03/11/13	68.67	109.44	<5	<5	<5	<5	<5	<5
	06/10/13	67.45	110.66	<5	<5	<5	<5	<5	<5
	09/03/13	67.75	110.36	<5	<5	<5	<5	<5	<5
	12/09/13	69.97	108.14	<5	<5	<5	<5	<5	<5

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern (µg/L)					
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
TOC = 161.55									
MW-22	01/08/08	179.90	-18.35	<5	<5	10	<5	<5	<5
	05/28/08	180.02	-18.47	<5	<5	10	<5	<5	640
	11/10/08	180.20	-18.65	<5	<5	10	<5	<5	560
	05/12/09	180.10	-18.55	5	<5	9	<5	<5	530
	1.1/16/09	> 200	--	5	<5	9	<5	<5	580
	05/17/10	214.00	-52.45	7	<5	9	<5	<5	700
	11/15/10	98.35	63.20	8	<5	9	<5	<5	1,000
	05/16/11	> 200	--	9	<5	9	<5	<5	--
	09/08/11	--	--	26	<10	<10	<10	<10	800
	10/19/11	--	--	<5	8	8	<5	<5	840
	11/15/11	168.10	-6.55	6	<5	7	<5	<5	2,500
	12/05/11	--	--	10	<5	6	<5	<5	500
	12/26/11	77.75	83.80	9	<5	8	<5	<5	500
	12/30/11	79.10	82.45	26	<25	<25	<25	<25	440
	03/06/12	--	--	8	<5	8	<5	<5	--
	04/19/12	167.60	6.05	79	<50	<50	<50	<50	970
	04/27/12	167.20	-5.65	77	<25	<25	<25	<25	790
	05/02/12	70.10	91.45	75	<50	<50	<50	<50	--
	05/09/12	64.95	96.60	97	<25	<25	<25	<25	1,800
	05/17/12	--	--	92	<25	<25	<25	<25	7,500
	05/24/12	--	--	<10	<10	<10	<10	<10	<50
	05/29/12	--	--	9	<5	7	<5	<5	6,400
	06/08/12	151.36	10.19	9	<5	8	<5	<5	5,700
	07/25/12	--	--	7	<5	10	<5	<5	6,600
	08/21/12	--	--	7	<5	9	<5	<5	7,500
	11/26/12	137.60	23.95	13	<5	9	<5	<5	<25
	02/28/13	53.42	108.13	87	<50	<50	<50	<50	1,200
	03/11/13	53.07	108.48	58	<5	9	<5	<5	890
	04/15/13	54.25	107.30	51	<50	<50	<50	<50	760
	05/16/13	52.00	109.55	67	<25	<25	<25	<25	660
	06/11/13	52.00	109.55	58	<25	<25	<25	<25	1,300
	07/11/13	51.56	109.99	42	<25	<25	<25	<25	5,700
	08/20/13	52.20	109.35	54	<25	<25	<25	<25	8,500
	09/03/13	52.33	109.22	110	<50	<50	<50	<50	<25
	10/02/13	54.51	107.04	64	<25	<25	<25	<25	7,700
	11/29/13	55.30	106.25	170	<50	<50	<50	<50	<50
	12/13/13	54.27	107.28	190	<5	9	<5	<5	14,000
	01/30/14	--	--	140	<100	<100	<100	<100	16,000

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)					
				cis-1,2-DCE	trans-1,2-DCE	PCF	1,1,1-TCA	TCE	Vinyl Chloride
Site Specific Standards									
PW-1	01/09/08	118.00	82.40	<5	<5	<5	<5	<5	<5
TOC = 200.40	05/28/08	NM	NM	<5	<5	<5	<5	<5	<5
	11/10/08	125.00	75.40	<5	<5	<5	<5	<5	<5
	05/11/09	132.37	68.03	<5	<5	<5	<5	<5	<5
	11/16/09	137.20	63.20	<5	<5	<5	<5	<5	<5
	05/18/10	137.20	63.20	<5	<5	<5	<5	<5	<5
	11/17/10	140.55	59.55	<5	<5	<5	<5	<5	<5
	05/16/11	124.00	76.40	<5	<5	<5	<5	<5	<5
	11/15/11	107.90	92.50	<5	<5	<5	<5	<5	<5
	05/29/12	124.40	76.00	<5	<5	<5	<5	<5	<5
	11/27/12	118.30	82.10	<5	<5	<5	<5	<5	<5
	03/13/13	68.70	131.70	<5	<5	6	<5	<5	<5
	06/11/13	68.65	131.75	<5	<5	6	<5	<5	<5
	09/04/13	77.70	122.70	<5	<5	7	<5	<5	<5
Dup	09/04/13	--	--	<5	<5	7	<5	<5	<5
	12/12/13	91.26	109.14	<5	<5	7	<5	<5	<5
PW-3	01/09/08	72.50	114.42	<5	<5	17	<5	<5	<5
TOC = 186.92	05/28/08	80.00	106.92	<5	<5	14	<5	290	<5
	11/10/08	84.60	102.32	<5	<5	24	<5	1,300	--
	05/11/09	83.70	103.22	<5	<5	9	<5	290	--
	11/16/09	87.80	99.12	<5	<5	10	<5	410	--
	05/17/10	88.70	98.22	<5	<5	10	<5	570	--
	11/15/10	96.30	90.62	<5	<5	10	<5	430	--
	05/17/11	83.02	103.90	<5	<5	10	<5	290	--
	11/16/11	70.00	116.92	<5	<5	18	<5	470	--
	05/30/12	81.00	105.92	<5	<5	13	<5	310	<5
	11/27/12	74.60	112.32	<5	<5	20	<5	760	<5
	03/13/13	50.12	136.80	<5	<5	24	<5	38	<5
	06/12/13	49.00	137.92	<5	<5	26	<5	38	<5
	09/04/13	57.42	129.50	<5	<5	21	<5	35	<5
	12/11/13	71.00	115.92	<5	<5	18	<5	250	<5

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)						
				dis-1,2-DCE	trans-1,2-DCE	DCE	PCP	1,1,1-TCA	TCE	Vinyl Chloride
PW-3D TOC = 187.24	01/09/08	87.87	99.37	<5	<5	<5	<5	<5	6	<5
	05/27/08	92.18	95.06	-	-	-	-	-	-	-
	11/10/08	81.61	105.63	>5	>5	>5	>5	>5	<5	<5
	05/12/09	96.66	90.58	-	-	-	-	-	-	-
	11/17/09	102.77	84.47	>5	>5	>5	>5	>5	69	-
	05/17/10	105.76	81.48	-	-	-	-	-	-	-
	11/15/10	100.91	86.33	<5	<5	<5	<5	<5	<5	<5
	05/16/11	90.17	97.07	-	-	-	-	-	-	-
	11/16/11	79.82	107.42	>5	>5	>5	>5	>5	-	-
	05/31/12	88.75	98.49	-	-	-	-	-	-	-
	11/28/12	82.16	105.08	<5	<5	<5	<5	<5	<5	<5
	03/13/13	65.51	121.73	<5	<5	<5	<5	<5	100	<5
	06/12/13	65.11	122.13	<10	<10	<10	22	<10	1,300	<10
Dup	06/12/13	--	--	6	<5	<5	28	<5	1,400	<5
	09/04/13	73.80	113.44	<5	<5	<5	26	<5	1,000	<5
	12/11/13	86.64	100.60	6	<5	<5	27	<5	1,000	<5
PW-5	01/10/08	98.50	107.08	-	-	-	-	-	-	-
	05/28/08	NM	NM	<5	<5	7	<5	<5	<5	-
	11/12/08	97.45	108.13	-	<5	-	-	-	-	-
	05/12/09	98.26	107.32	<5	<5	10	<5	<5	<5	-
	11/16/09	127.20	78.38	<5	<5	7	<5	<5	<5	-
	05/19/10	132.00	73.58	<5	<5	7	<5	<5	<5	-
	11/15/10	119.90	85.68	<5	<5	<5	<5	<5	<5	-
	05/16/11	105.80	99.78	<5	<5	8	<5	<5	15	-
	11/15/11	97.95	107.63	<5	<5	<5	<5	<5	<5	-
	05/31/12	104.51	101.07	<5	<5	9	<5	<5	<5	-
	03/12/13	86.20	119.38	<5	<5	5	<5	<5	7	<5
	03/29/13	--	--	<5	<5	7	<5	<5	9	<5
	06/11/13	68.10	137.48	<5	<5	8	<5	<5	<5	<5
	09/04/13	96.84	108.74	<5	<5	9	<5	<5	<5	<5
	12/11/13	113.21	92.37	<5	<5	6	<5	<5	<5	<5

TABLE 1
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern (ug/L)						
				cis-1,2-DCE	trans-1,2-DCE	DCE	PCE	1,1,1-TCA	TCE	Vinyl Chloride
PA11S2-00R1S										
Spec's Chicken Well	01/09/08	75.94	95.98	6	<5	<5	<5	<5	<5	<5
TOC = 171.92	05/27/08	74.21	97.71	7	<5	<5	<5	<5	<5	5
	1.1/12/08	NM	NM	5	<5	<5	<5	<5	<5	<5
	05/13/09	75.72	96.20	<5	<5	<5	<5	<5	<5	<5
	1.1/19/09	76.05	95.87	5	<5	<5	<5	<5	<5	<5
	05/19/10	73.91	98.01	5	<5	<5	<5	<5	<5	<5
	1.1/19/10	76.46	95.46	6	<5	<5	<5	<5	<5	<5
	05/18/11	74.49	97.43	6	<5	<5	<5	<5	<5	<5
	1.1/18/11	72.36	99.56	6	<5	<5	<5	<5	<5	<5
	05/30/12	70.85	101.07	7	<5	<5	<5	<5	<5	<5
	1.1/29/12	61.70	110.22	7	<5	<5	<5	<5	<5	<5
	03/12/13	66.00	105.92	5	<5	<5	<5	<5	<5	<5
	06/11/13	64.29	107.63	6	<5	<5	<5	<5	<5	<5
	09/04/13	68.17	103.75	6	<5	<5	<5	<5	<5	<5
	12/11/13	68.55	103.37	7	<5	<5	<5	<5	<5	<5
BBFIELD										
—	01/07/08	86.62	--	<5	<5	<5	<5	<5	<5	<5
	05/28/08	87.35	--	<5	<5	<5	<5	<5	<5	12
	1.1/11/08	88.35	--	<5	<5	<5	<5	<5	<5	7
	05/11/09	86.40	--	8	<5	<5	<5	<5	<5	75
	1.1/17/09	86.91	--	<5	<5	<5	<5	<5	<5	6
	05/17/10	86.40	--	<5	<5	<5	<5	<5	<5	15
	1.1/17/10	86.65	--	<5	<5	<5	<5	<5	<5	11
	05/17/11	84.35	--	<5	<5	<5	<5	<5	<5	35
	1.1/15/11	84.32	--	<5	<5	<5	<5	<5	<5	<5
	05/30/12	83.40	--	<5	<5	<5	<5	<5	<5	<5
Dup	05/30/12	--	80.74	--	<5	<5	<5	<5	<5	9
Dup	11/27/12	--	--	<5	<5	<5	<5	<5	<5	<5

TABLE I
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)							
				cis-1,2-DCE	trans-1,2-DCE	PCE	1,1,1-TCA	TCE			
PA-1UA-2500-RES											
BBFIELD											
cont'd	02/28/13	78.25	-	5	<5	8	<5	94			
<i>Dup</i>	03/12/13	74.49	-	<5	<5	<5	<5	<5			
	03/12/13	-	-	<5	<5	<5	<5	27			
	04/15/13	72.71	-	<5	<5	<5	<5	26			
	05/16/13	72.45	-	<5	<5	<5	<5	280			
	06/10/13	72.70	-	<5	<5	<5	<5	400			
	06/10/13	72.70	-	<5	<5	<5	<5	650			
	07/11/13	72.25	-	<5	<5	<5	<5	460			
	08/20/13	72.85	-	<5	<5	<5	<5	560			
	09/03/13	72.89	-	<5	<5	<5	<5	610			
	10/02/13	77.12	-	<5	<5	<5	<5	<5			
	11/15/13	80.75	-	<5	<5	<5	<5	<5			
	12/09/13	79.03	-	<5	<5	<5	<5	<5			
	01/30/14	73.30	-	<5	<5	5	<5	<5			

$\mu\text{g/l}$ = micrograms per liter

ft = feet

< = analyte not detected at or above the specified laboratory detection limit

TOC = Top of Casing. The units are feet above mean sea level (ft msl).

J = Estimated value; added during data validation review process

Wells highlighted in blue are Point of Compliance (POC) wells.

Bolded values indicate results are in exceedance of site specific standards.

PA-1UA-2500-RES = PADEP SHS Medium-Specific Concentrations in Groundwater, Residential Used Aquifer, TDS \leq 2,500, Residential, Jan. 2011

Dup = Duplicate sample

- = Not Analyzed/ Not Applicable

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

PCE = Tetrachloroethene

1,1,1-TCA = 1,1,1-Trichloroethane

TCE = Trichloroethene

** = Digital liquid level reading

TABLE I
GROUNDWATER ANALYTICAL DATA SUMMARY (2008-PRESENT)
POINT OF COMPLIANCE (POC) WELLS AND INTERIOR MONITORING WELLS
SUPERIOR TUBE COMPANY, INC.,
COLLEGEVILLE, PA

Location ID	Sample Date	Depth to Water (ft)	Groundwater Elevation (ft)	Constituents of Concern ($\mu\text{g/L}$)			
				cis-1,2-DCE	trans-1,2-DCE	p-CPE	1,1,1-TCA
Site Specific Standards							
M1W-1	01/09/08	83.92	74.32	<5	<5	<5	<5
TOC = 158.24	11/11/08	85.67	72.57	23	<5	<5	<5
	11/18/09	84.08	74.16	19	<5	<5	<5
	11/17/10	82.60	75.64	26	<5	<5	<5
	11/14/11	68.78	89.46	28	<5	<5	<5
	11/14/11	68.78	89.46	28	<5	<5	<5
Dup	12/26/11	80.81	77.43	27	<5	<5	<5
	12/28/11	77.75	80.49	30	<5	<5	<5
	12/30/11	72.64	85.60	41	<5	<5	<5
	04/19/12	65.00	93.24	47	<5	<5	<5
	04/27/12	62.67	95.57	26	<5	<5	<5
	05/03/12	61.90	96.34	35	6.2	0.9	<0.5*
	05/09/12	58.75	99.49	26	<5	<5	<5
	05/17/12	--	--	30	<5	<5	<5
	05/24/12	--	--	57	<5	<5	<5
	06/08/12	74.02	84.22	26	<5	<5	<5
	11/28/12	69.51	88.73	18	<5	<5	<5
	03/13/13	49.60	108.64	26	<5	<5	<5
	06/11/13	48.72	109.52	59	<5	<5	<5
	09/04/13	48.38	109.86	87	<5	6	<5
	10/02/13	50.28	107.96	88	<10	<10	<10
	11/15/13	51.40	106.84	100	<5	7	<5
	12/12/13	50.29	107.95	97	<5	7	<5
Dup	12/12/13	--	85	<10	<10	<10	<10
	01/30/14	47.60	110.64	100	<25	<25	<25
							2,900